

REMARKS

For the amendments made to the claims and the remarks made herein, applicant respectfully requests reconsideration and withdrawal of the rejections.

Claims 1-10 and 12-16 are pending and stand rejected. Claims 1, 2, 3, 5, 10 and 23-26 have been amended. No new matter has been added. Claim 27 has been added.

Claims 1-2, 5-6, 9-10, 12-15, 18 and 21-24 stand rejected under 35 USC §103(a) as being unpatentable over Sisalem (XP-002226884) in view of Shaw (USP no. 6,362,836). Dependent Claim 3-4, 7-8, 16-17, 19-20 and 25-26 are rejected under 35 USC 103(a) as being unpatentable over Sisalem in view of Shaw and further in view of Berthaud (USP No. 5,815,492).

Applicant respectfully disagrees with, and explicitly traverses, the examiner's reason for rejecting the claims. However, in the interest of advancing the prosecution of this matter, applicant has elected to amend the independent claims to more clearly state the invention. More specifically, applicant has amended claim 1, for example, to further recite a filtering step executed on computed bandwidth samples based on at least one known criterion. No new matter has been added. Support for the amendment to the independent claims may be found in at least claims 2, 3, 5 and 10.

A claimed invention is prima facie obvious when three basic criteria are met. First, there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings therein. Second, there must be a reasonable expectation of success. And, third, the prior art reference or combined references must teach or suggest all the claim limitations.

Sisalem teaches a method for determining a bottleneck bandwidth in a network by measuring the inter-packet spacing between two packets that are transmitted without intervening packets between them. The inter-packet spacing is considered proportional to the time required for the bottleneck router to process the second packet of the pair. Sisalem fails to teach that the bursts include at least 3 packets. Sisalem further teaches

using a "histogramming" method to determine the bandwidth. (see p. 6, lines 21-24, "[t]o estimate the average bottleneck ... we need to further filter out incorrect estimates. We rely on an approach ... [of] clustering similar estimates into intervals, and choosing the average of the interval with the highest number of estimates.")

Shaw discloses a system that transmits bursts of packets having respectively, one, two, three, etc. packets up to a maximum of 250 msec.

Contrary to the statements made in the Office Action, the present invention is not rendered obvious by the teachings of Sisalem and Shaw. Sisalem fails to disclose or suggest filtering the bandwidth samples based on at least one criterion as is recited in the claims. Rather, Sisalem teaches removing samples from the set of samples simply by selecting the interval with the largest number of samples. This method of removing samples does not consider any characteristics of the received bursts as is recited in the claims.

Furthermore, it would be recognized that the method taught by Sisalem can result in an inaccurate value for noisy channels with large delays or channels with a large number of packet drops. In this case, the histogram method described may cause a resultant determined bandwidth sample to be skewed toward bandwidth samples with larger errors, e.g., those samples containing dropped packets. This skewing of the resultant determined bandwidth sample is caused by Sisalem failing to limit the data used in the histogram by removing, i.e., filtering, the data prior to determining the new bandwidth sample. Hence, one would not look toward Sisalem to incorporate filtering based on criterion prior to determining the new bandwidth sample, as is suggested by the Office Action. Shaw, on the other hand, is silent on filtering the samples prior to determining a new bandwidth.

Hence, even if the teachings of Sisalem and Shaw were combined as suggested by the Office Action, applicant submits that the combined device fails to render the obvious the invention recited, as the combined device fails to recite each and every element claimed.

Having shown that the combination of Sisalem and Shaw fails to render obvious the invention claimed, applicant submits that the reason for the rejection has been

overcome and can no longer be sustained. Applicant respectfully requests that the rejection be withdrawn and the claim allowed.

With regard to claims 12 and 23, these claims were rejected reciting the same references used in rejecting claim 1. Thus, the remarks made in response to the rejection of claim 1 are also applicable in response to the rejection of claims 12 and 23, as these claims recite subject matter similar to that recited in claim 1. Accordingly, in view of the amendment made to the claims and for the remarks made with regard to the rejection of claim 1, which are reasserted, as if in full, in response to the rejection of claims 12 and 23, applicant submits that the reason for rejecting claims 12 and 23 can no longer be sustained. Applicant respectfully requests withdrawal of the rejection and allowance of the claims.

With regard to the remaining claims, these claims depend from the independent claims 1, 12 and 23, which have been shown to be allowable in view of the cited references. Accordingly, these claims are also allowable by virtue of their dependence from an allowable base claim.

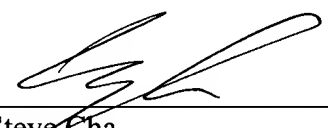
Claim 27 has been added. No new matter has been added. Support for claim 27 may be found in at least claim 10.

Although the last Office Action was made final, this amendment should be entered. The independent claims have been amended to more clearly state the invention using subject matter recited in the dependent claims. Hence, no matter has been added to the claims that would require comparison with the prior art or any further review. Accordingly, pursuant to MPEP 714.13, applicant's amendments should only require a cursory review by the examiner. The amendment therefore should be entered without requiring a showing under 37 CFR 1.116(b).

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,
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